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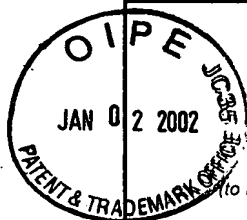


PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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Application Number	09/803,718
Filing Date	March 9, 2001
First Named Inventor	Ravi Narasimhan
Group Art Unit	2631
Examiner Name	Not Yet Assigned
Attorney Docket Number	047586/P063US/10026081

Total Number of Pages in This Submission

ENCLOSURES (check all that apply)

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<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual Name	FULBRIGHT & JAWORSKI L.L.P. R. Ross Viguet
Signature	
Date	October 17, 2001

Transmittal

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.

Dated: October 17, 2001

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(Linda Cuccia)

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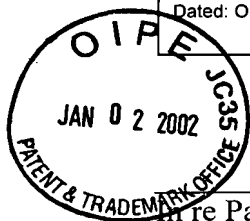
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Signature:

Linda Cuccia
(Linda Cuccia)

Docket No.:

47586/P063US/10026081
(PATENT)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of:
Ravi Narasimhan, et al.

Application No.: 09/803,718

Group Art Unit: 2631

Filed: March 9, 2001

Examiner: Not Yet Assigned

For: SPACE-TIME AND SPACE-FREQUENCY
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INFORMATION DISCLOSURE STATEMENT (IDS) JAN 07 2002

Commissioner for Patents
Washington, DC 20231

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Dear Sir:

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned.

A copy of each reference on PTO/SB/08 is attached.

A concise explanation of relevance of the items listed on form PTO/SB/08 is:

☒ not given

☐ given for each listed item

☐ given for only non-English language listed items

[] in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references

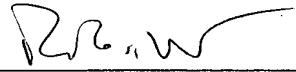
While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-2380, under Order No. 047586/P063US/10026081. A duplicate copy of this paper is enclosed.

Dated: October 16, 2001

Respectfully submitted,

By 

R. Ross Viguet

Registration No.: 42,203

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	09/803,718
		Filing Date	March 9, 2001
		First Named Inventor	Ravi Narasimhan
		Group Art Unit	2631
		Examiner Name	Not Yet Assigned
Sheet 1 of 1	Attorney Docket Number	047586/P063US/10026081	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS								
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A	60/190,009, "Space-Time and Space-Frequency Hopping for Capacity Enhancement of Mobile Data Systems, filed March 17, 2001	
	B	09/511,665, "Transmitting Beam Forming in Smart Antenna Array Systems", filed February 23, 2000	
	C	09/229,482, "Practical Space-Time Radio Method for CDMA Communication Capacity Enhancement", filed January 13, 1999	
	D	09/310,567, "Manifold Assisted Channel Estimation and Demodulation for CDMA Systems in fast fading environments", filed May 12, 1999	
	E	09/450,318, "Polarization and Angular Diversity among Antenna Beams", filed November 29, 1999	
	F	Viterbi, CDMA, "Principles of Spread Spectrum Communications", p. 227 (1995)	
	G	Kronstedt and Andersson, "Adaptive Antennas in Frequency Hopping GSM", ICUPU 1998, pp. 325-29	

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